

Promote Normal Blood Sugar Naturally



- Promote Healthy Blood Sugar Levels
- Promote Healthy Weight Loss
- Reduce Absorption of Sugars & Other Carbohydrates
- Promote Healthy Insulin Sensitivity & Production
- Promote Heart, Blood Vessel & Circulatory Health
- Promote Healthy Energy

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The 3 Essentials of Healthy Blood Sugar

There are steps you can take to promote normal blood sugar, and we call them “The 3 Essentials of Healthy Blood Sugar.” Target any one of the 3 Essentials and you'll support healthy blood sugar levels. But **target all 3 Essentials together** and you'll help keep your blood sugar levels within the normal range.

Essential #1 - Reduce the Intake of Glucose

Having excessive glucose in your blood makes it more difficult to keep your blood sugar in the normal range. Therefore, by reducing the intake of glucose you can support your overall blood sugar health. How can you do this? One way is to change to a low-carbohydrate diet, thus reducing the amount of glucose you take in. Another way is to reduce your body's absorption of glucose.

A low-carbohydrate diet.

The primary dietary source of glucose is carbohydrates (including sugar and starches). Typically, the American diet is full of simple carbohydrates, such as white bread, pastries and table sugar, which are quickly absorbed by our bodies. A recent long-term study has found that it's easier to maintain healthy blood sugar by sticking to a Mediterranean-type diet (a low carbohydrate diet with less than 50 percent of calories coming from carbohydrates). This was in comparison to a low-fat diet (less than 30 percent of calories coming from fat).

Reducing your body's absorption of glucose. Your body absorbs glucose (and transports it into your blood) when the food you take in goes into your intestines. By reducing the amount of glucose your body absorbs, you can thereby reduce the amount of glucose going into your blood. Some natural ingredients, such as mulberry leaf extract, are found to be very effective in reducing carbohydrate or sugar absorption in the intestines. For instance, a 2007 study at the University of Minnesota (Minneapolis VA Hospital) found that just one gram of mulberry leaf extract reduced carbohydrate and sugar absorption by 21 percent.

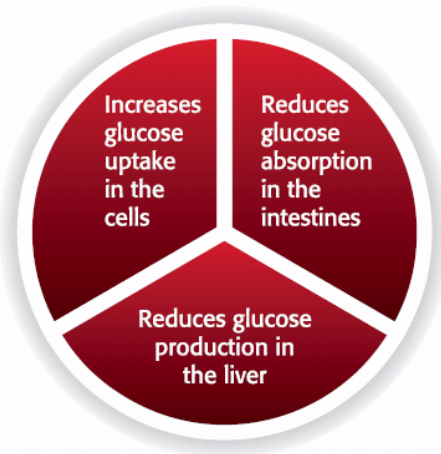
Mulberry trees are grown in many parts of the world, including Asia, Europe, and North America. Mulberries are commonly eaten as a fruit, and according to the

American Herbal Products Association mulberry leaf has been safely consumed for thousands of years (www.ahpa.org). During the last several decades, both animal and human studies have established that mulberry leaf extracts have strong safety profiles. The mulberry leaf extract used in Glucocil is produced under strict

quality control systems. Glucocil is regulated by the FDA as a dietary supplement and is regularly tested by independent laboratories to ensure its quality.

Essential #2 - Reduce the Production of Glucose

Your body produces glucose to fuel cells for their activities. The process of generating glucose is done by the liver and is controlled by a group of hormones and enzymes. As



we age, or if we are not in optimal health, communication and balance among these hormones and enzymes can be disrupted and the liver produces more glucose than necessary. This overproduction of glucose can make it harder to keep your blood sugar in the normal range. You can improve the imbalance of these hormones and enzymes through a proper diet and regular exercise. While these are both very important in overall health, studies have shown that taking a natural nutrient, such as mulberry leaf extract, can be equally effective.

Essential #3 - Increase the Ability of Cells to Uptake More Glucose

In response to high blood sugar levels, your body releases insulin, a hormone made by the pancreas that directs cells to uptake glucose from the blood, which enables the cells (i.e., muscle, fat, liver) to use glucose for energy. When cells are sensitive to insulin, glucose uptake is normal, directly contributing to healthy blood sugar levels.

Exercise is one way you can help enable cells to take in more glucose. Moderate exercise (defined as 30 minutes per day, five days a week) together with a 5-6 percent loss of body weight can make it significantly easier to keep your blood sugar in the normal range.

Natural ingredients such as alpha lipoic acid, chromium, and banaba leaf extract (all of which are found in the Glucocil formula) can also improve insulin sensitivity and thereby help enable your body's cells to uptake more glucose. This is demonstrated by more than 70 clinical studies around the world.

How Glucocil Can Help

Glucocil is formulated to support the 3 Essentials of Healthy Blood Sugar:

1. Reduce the intestines' absorption of glucose from food
2. Reduce the liver's production of glucose
3. Increase glucose uptake in the body's cells

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Glucocil and the 3 Essentials of Healthy Blood Sugar

There are three important components of maintaining healthy blood sugar levels that you need to be aware of: 1) reduce your body's absorption of glucose from food; 2) reduce your body's production of glucose; and 3) increase the ability of cells in your body to uptake more glucose from blood. We called these components "The 3 Essentials of Healthy Blood Sugar."

While regular exercise and a proper diet (such as eating low-carbohydrate foods and selecting Mediterranean-style meals) will help you achieve all three essentials, taking the right natural supplement will also help. This is where Glucocil can play a critical role.

Reduce Absorption of Glucose

Ingesting sugar and carbohydrates elevates your glucose. The key enzyme at the end of the digesting process is called alpha glucosidase, and its job is to release glucose from the more complicated carbohydrates. But Glucocil reduces the efficiency of this carbohydrate breakdown, and most unabsorbed carbohydrates gently pass through the intestines and are eventually excreted from the body. In one Neuliven Health clinical trial, the proprietary mulberry leaf extract in

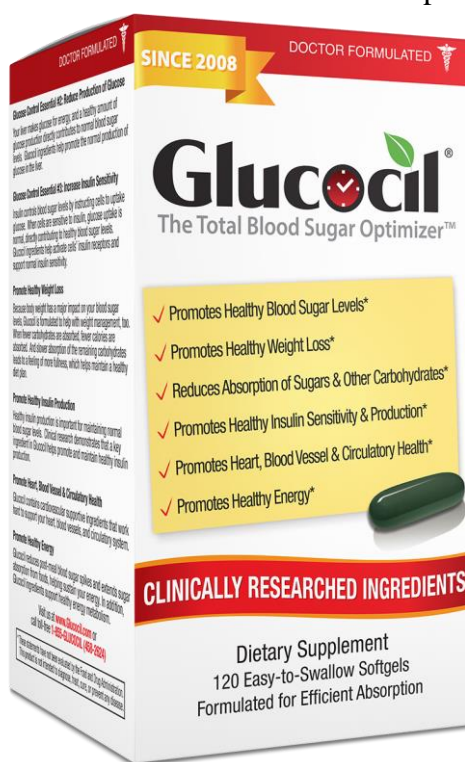
Glucocil was shown to inhibit carbohydrate absorption by 21%.

The first published study on the proprietary mulberry leaf extract used in Glucocil appeared in 2006 in *The American Journal of Clinical Nutrition*. One of the purposes of the study was to determine the ability of this ingredient to help reduce the absorption of carbohydrate in healthy volunteers. The study was conducted by researchers at the Minneapolis Veterans Affairs Medical Center/Department of Medicine, University

of Minnesota. The statistically significant results provided the basis for other experiments to determine if the extract had practical utility in helping people who want to promote healthy blood sugar.

The second published study on the mulberry leaf extract used in Glucocil was published in 2007. The purpose of this study was to determine if its co-ingestion (with 75 grams of sugar) influenced blood glucose response and sugar absorption. The study was conducted again

by researchers at the Minneapolis Veterans Affairs Medical Center/Department of Medicine, University of Minnesota. The results showed that co-ingestion of Glucocil's proprietary mulberry leaf extract significantly reduced the increase and fluctuation of observed blood glucose in both groups of subjects.



Glucocil Helps Reduce Glucose Production in the Liver

One of the liver's jobs is to make glucose. The human body is like a hybrid car that runs on either gasoline or battery power. Gasoline, or glucose, is used for high-energy activities (or in times of stress), and battery power, or body fat, for low-energy activities. During the day, when food refuels the "gas tank," the body burns mainly glucose. During sleep, it burns primarily fat. There are hormones and enzymes in the body that tell the liver when to produce glucose, but if the liver can't properly read these signals—due to aging or poor health—excess glucose builds up in the bloodstream, often 200%-300% more than what is necessary. But Glucocil helps support the liver's healthy production of glucose.

Glucocil Helps Increase Cellular Uptake of Glucose

Insulin, a natural hormone made by the pancreas, controls blood sugar levels and also enables the body's cells to use glucose for energy. When cells are ready and willing to accept the glucose to fuel your body, glucose uptake is normal. But when cells "ignore"—or become insensitive to—insulin, glucose uptake isn't normal. That's when excess glucose builds up in the bloodstream, with very serious implications. But you can boost insulin sensitivity by moderating what you eat and moving your body more. Glucocil also helps activate insulin receptors and promotes insulin sensitivity.

How Glucocil Can Help

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"Fight the Spike" to Avoid Weight Gain?

Blood sugar levels usually go up after eating. For most healthy people, post-meal blood sugar levels do not go up very high or for long. But if your post-meal blood sugar spikes go up too high and too often, your chance of weight gain could be greatly increased.

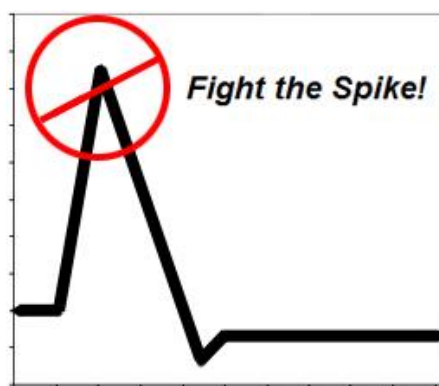
What's a Spike?

Depending on the type and amount of carbohydrates eaten during a meal, peak blood sugar levels can go up to 200 milligrams per deciliter (mg/dl) or more. Most refined carbohydrates (ones that have been processed and stripped of the bran and germ from the whole grain, such as white rice, pasta and bread made with white flour) create a faster spike in blood sugar levels while unrefined carbohydrates (ones that are not processed, such as whole grains) create a slower spike. In response to rising blood sugar levels, the body produces insulin to bring glucose back down to fasting levels, or even lower. This usually happens within about 60 minutes after eating. This whole process is called "postprandial blood sugar fluctuation" or "glucose excursion" among the medical community. For most of us, it's simply known as post-meal blood sugar spike.

How Blood Sugar Spikes Cause Weight Gain

Scientific studies have shown that post-meal spikes in your blood sugar can cause of weight gain. This is for three reasons:

1. The higher the spike, the more insulin secretion. Insulin is known for increasing fat tissue and promoting weight gain.
2. The body burns fat, a process called fatty acid oxidation, all the time. However, in a high post-meal spike situation, the body stops fatty acid oxidation and initiates carbohydrate oxidation instead. That means the body stops burning fat.
3. After eating a high-carbohydrate meal (especially one that contains refined carbohydrates), a big post-meal blood sugar spike occurs. The body reacts to this "hit" of sugar by over-secreting insulin (what is known as an "insulin overshoot"). That in turn causes the blood sugar to go even lower than normal fasting stage after 2-3 hours after the meal, a condition called "hypoglycemia" where a person often develops a headache and feels jittery, irritable and fatigued. Also, hunger will come earlier than normal. As a result, an increase in food intake occurs that contributes to weight gain.



How to Better Avoid Blood Sugar Spikes

It's important to avoid these spikes. How? Scientific studies have shown that by following a proper exercise routine, adopting a diet of foods with a low glycemic index and taking certain natural supplements—in particular, mulberry leaf

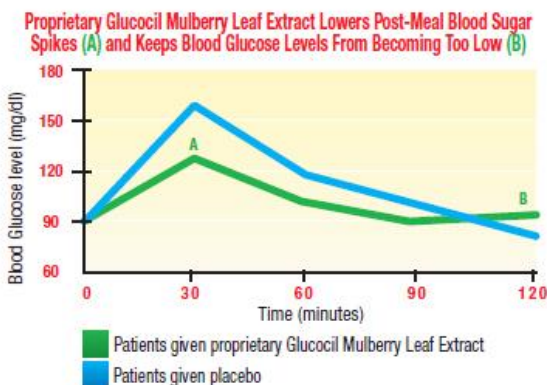
extract, a key ingredient in Glucocil—that people are better able to avoid post-meal blood sugar spikes.

- **Regular Exercise.** For help in avoiding post-meal blood sugar spikes, it's best to take a 10- to 30-minute walk after a meal.
- **A Low Glycemic Index Diet.** The glycemic index (GI) ranks foods according to their immediate effect on blood glucose levels, or blood sugar spikes. Low glycemic index foods, such as whole grains and nuts, cause just a small post-meal spike while high glycemic index foods, such as white bread and pastries, cause a large post-meal spike.

For more about the glycemic index and to find the GI value of the foods you eat, go to www.glycemicindex.com.

How Glucocil Helps

Ingesting sugar and other carbohydrates elevates your blood glucose levels, but the proprietary mulberry leaf extract in Glucocil gently and effectively reduces carbohydrate absorption. In a clinical study, it instantly lowered peak post-meal elevations by up to 44% and helped people maintain healthy blood sugar levels between meals.



Promoting healthy blood sugar metabolism is critical, but Glucocil doesn't stop there. Most people aren't aware of the "**3 Essentials of Healthy Blood Sugar**":

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Diet, Exercise, and Glucocil, Part 1: What Can I Eat?

Among the first things people ask when they want to promote healthy blood sugar levels is "What can I eat?"

Oftentimes, they immediately think that they are about to face a future full of restrictions and deprivation. But that really isn't so. There's an abundance of good, healthy, and great-tasting foods still to be enjoyed for anyone wishing to avoid blood sugar levels outside the normal range.

Being overweight is the major challenge to maintaining healthy blood sugar. And according to the Centers for Disease Control and Prevention, about 65 percent of Americans are now overweight (one-third of which are considered obese).

Because weight loss through proper diet and regular exercise is important to promoting healthy blood sugar, let's first take a close look at diet. (In our next newsletter, we'll talk about exercise.)

The Specifics of Proper Nutrition

Because of the connection between a healthy weight and healthy blood sugar, a healthy diet to promote normal blood sugar is really not that much different than a diet that promotes weight loss. Furthermore, it's actually a diet that many medical experts recommend everyone follow in order to

maintain optimal health. Here are some general guidelines, compiled from top health sources. Of course, it is important to work with your health-care provider and a registered dietitian who specializes in helping people promote healthy blood sugar to set up specific calorie counts and meal compositions (percentage of carbohydrates, fats and proteins) that are appropriate for your individual weight, blood sugar levels and health goals.



1. **Stay in control of carbs.** According to a report from a 2007 annual meeting of The Obesity Society, since foods that contain carbohydrate raise your blood glucose, a low-carbohydrate diet

appears to be the preferred diet for overweight individuals who want to promote healthy blood sugar. Pay close attention to the amount of carbs you are eating (look for "total carbohydrates" on nutrition labels to get a count) and when you do eat carbs, stay away from products that contain added sugars and ones made up of "refined carbs" (processed grains that have had their beneficial fiber stripped away, such as white rice and products made with white flour) and focus on whole grains (which still have all their beneficial fibers intake) and fruits and vegetables—all plant foods that are high in fiber. According to the a leading national authority on promoting healthy blood sugar, "because

fiber is not digested like other carbohydrates [it is more slowly absorbed into our systems], for carbohydrate-counting purposes, if a serving of a food contains more than or equal to 5 grams of dietary fiber, you can subtract half the grams of dietary fiber from the total carbohydrate serving of that food."

2. **Get adequate fiber.** Adults need to eat 25 to 30 grams of fiber a day for good health, says the ADA. Aside from the benefits to your digestive health, eating enough fiber helps make you feel full and satisfied after eating so that you don't eat too much or too often. Aim to eat foods that contain 2.5 to 5 grams or more of fiber per serving. Good sources include legumes, whole grains (breads, cereal, pasta), nuts, and fruits and vegetables (best ones have edible skin or seeds for added fiber).
3. **Eat healthy fats and avoid bad ones.** Although carbohydrates are the main focus, you also want to pay close attention to the quality of fats that you eat, to promote heart and blood vessel health. Like carbohydrates, there are good fats and bad fats. Healthy/good fats to focus on include monounsaturated fats that lower your bad LDL cholesterol, polyunsaturated fats and omega-3 fatty acids. Monounsaturated fats are found in avocado, olive and canola oils, nuts (including peanut butter and oil) and seeds (in particular sesame); polyunsaturated fats are found in some oils (such as

safflower and soybean), walnuts and pumpkin or sunflower seeds; and great sources of omega-3 fatty acids include oily fish (such as albacore tuna, rainbow trout, sardines and wild salmon), soybean products (such as tofu), walnuts and flaxseed. (Most nutrition experts recommend eating fish at least 2 to 3 times per week.) Bad fats to avoid are saturated fats (in high-fat dairy and meats, poultry skin, palm and palm kernel oils, and coconut and coconut oil) and trans fats (when oil goes through a hydrogenation process that turns liquid oil into solid fat) found in many baked goods and processed foods, like chips and crackers, and stick margarines. A leading national authority on promoting healthy blood sugar recommends that anyone who wants to promote normal blood sugar levels get less than 7 percent of their total daily calories from saturated fat (about 15 grams or less per day) and avoid all trans fats.

4. **Plan for a sweet indulgence.** People who wanted to promote healthy blood sugar used to be advised to avoid sugar completely. However, it is now known that it's the total amount of carbohydrates eaten, more so than the type, that affects blood glucose levels. Therefore, with proper planning the ADA says that it's perfectly fine to have a sweet indulgence along as you keep it small and limit it to special occasions-and that you pay close attention to your total carbohydrate count so

that you can keep your blood glucose levels on track.

5. **Watch your portion sizes.** It doesn't matter if you only eat "good" food if you still eat too much of it. Again, weight gain and being overweight is a major reason why so many Americans can find it difficult to maintain healthy blood sugar levels. Use small plates so that your portions are smaller, avoid regularly going for "seconds," and work closely with a dietitian to help you determine a daily calorie count that is appropriate for you and your health goals.

In order to promote normal blood sugar, you first and foremost need to adopt healthy eating habits and exercise regularly. In fact, research connected with a landmark research study of blood sugar has shown that even modest lifestyle changes relating to a healthier diet and increased physical exercise that results in losing just 7 percent of body weight can benefit a person who wants to promote healthy blood sugar levels.

How Glucocil Can Help

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Diet, Exercise, and Glucocil, Part 2: The Importance of Exercise

If you're like most Americans, you started your New Year with the resolution to exercise more. But while it's important for all of us to maintain a healthy weight or shed pounds if we are overweight, it is vital if you want to keep your blood sugar levels within the normal range. In fact, being overweight is more than likely the reason why someone might have unhealthy blood sugar in the first place. According to the Centers for Disease Control and Prevention, while not everyone with unhealthy blood sugar is overweight, obesity and lack of physical activity are two of the most common causes.

In our last newsletter, we talked about the importance of a proper diet in promoting healthy blood sugar levels.

The second component of an effective program for maintaining healthy blood sugar is a regular program of physical activity. That's because when a muscle is exercised, it draws glucose out of the bloodstream for fuel, helping stabilize levels of sugar in the blood. This effect continues for 24 to 72 hours after exercising. For this reason, experts recommend people who want to promote healthy blood sugar exercise at least five days per week, if not every day. This ensures that the muscles draw sugar from the bloodstream continuously.

Exercise Is Effective, Even Independent of Diet

While diet and exercise together are most effective in maintaining healthy blood sugar, studies indicate that independent of diet a good exercise regimen by itself can have a significant effect on blood glucose levels. In fact, a widely referred meta analysis (a review of a group of studies) released by The Cochrane Library and published in a 2006 issue of their *Cochrane Database of Systematic Reviews* unveiled this finding.

(Cochrane reviews are comprised of the combined results of the world's best medical research studies and are recognized as the gold standard in evidence-based health care.)

According to study co-author Elizabeth Elliott, M.D., of the University of Sydney and Children's Hospital at Westmead in Australia, "In this study, we wanted to determine if there was an independent effect of exercise—separate from

dietary modification and medications—in improving outcomes."

The Results: The research review found that in those who wanted to support healthy blood sugar levels, exercise helped regulate blood glucose and improved the body's insulin sensitivity. Exercise also decreased blood lipids while helping burn body fat (and replacing this unhealthy body fat with healthy muscle, even though there wasn't a significant drop in weight among the exercisers).



How Much Exercise is Enough?

While the jury is still out on a definitive amount of exercise that is most effective—especially since there are so many individual factors—there have been numerous studies presenting guidelines with most experts finding about 30 minutes per session most days of the week to be effective at supporting healthy blood sugar levels (and ensuring that the muscles draw sugar from the bloodstream continuously, as previously mentioned).

One study, published in a 2005, found that walking or doing other aerobic exercise for 38 minutes—about 2.2 miles or 4400 steps—showed a significant effect for those who wanted to support healthy blood sugar, even if they didn't lose weight. Subjects in the study who exercised about 83 minutes per day got even better results (including significant weight loss).

Of course, if you have been sedentary, it is important to check with your physician before starting an exercise program. Also, it is important to start slowly to prevent injury (or discouragement)—even if it is just 10 minutes a day—and work up to longer bouts of exercise.

Also, keep in mind that you don't have to always “exercise” per se to reap the benefits. Any physical activity that elevates your breathing and uses your large muscles—such as doing housework or yard work, dancing, brisk walking or climbing stairs—can benefit you.

As we have repeatedly emphasized: Your first and foremost steps in promoting normal blood sugar levels are to adopt healthy eating habits and exercise regularly. And as the above information indicates, there is really no substitute for a good exercise

program in maintaining healthy blood sugar levels. Unfortunately, as the saying goes, “life happens” and often situations arise when you can't exercise enough.

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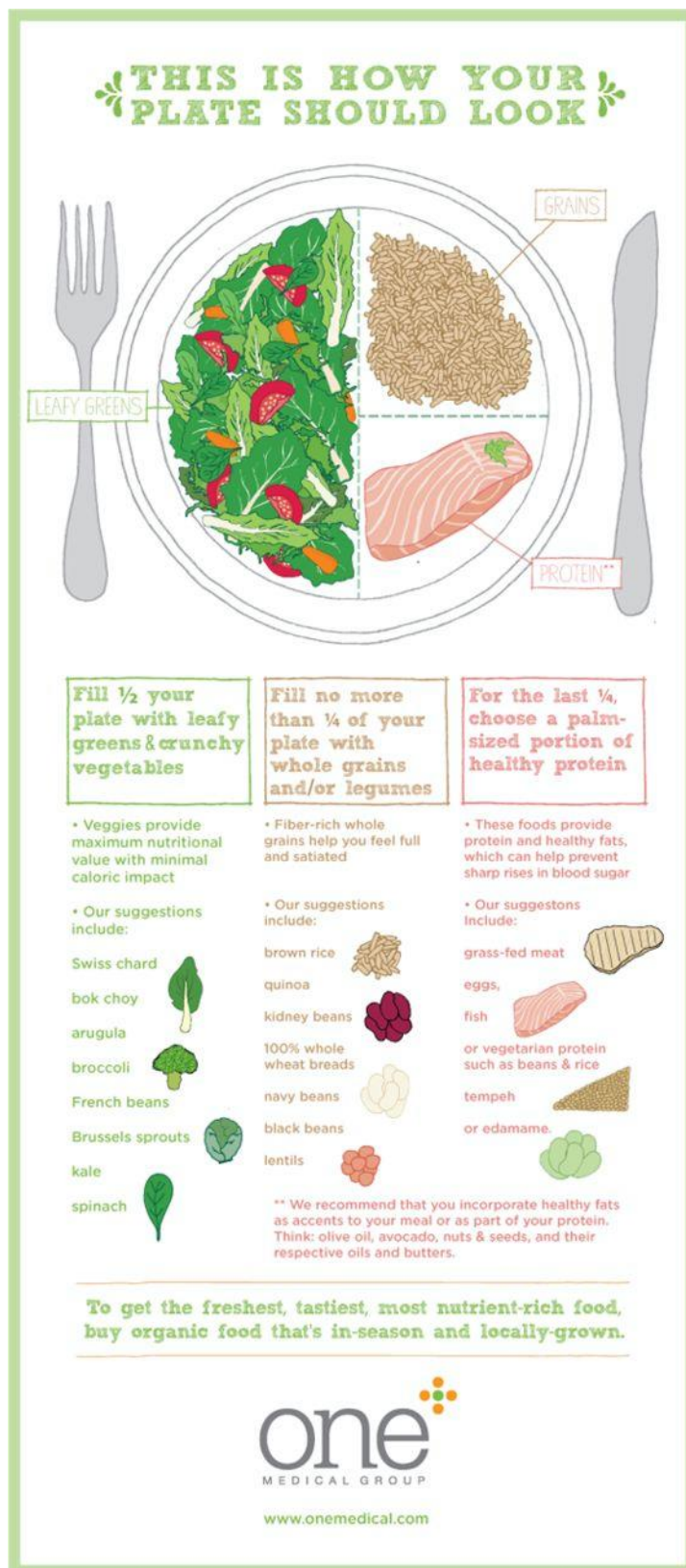
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What's on Your Plate?

To optimize your blood sugar, proper diet is your first step. One way to make healthy food choices is to use a plate diagram. The idea is simple: *You plan meals based on how much space each type of food should take on your plate.* Using this strategy can help you eat a balanced diet and reduce post-meal blood sugar spikes.

In general, fill one half of your plate with non-starchy vegetables. Then add lean meat (or other protein source) to another one-quarter of your plate. Grains or starchy vegetables (such as brown rice or a potato) fill the last quarter of your plate. A small portion of fruit and some low-fat (or fat-free) milk or yogurt can be added, depending on your carbohydrate goal for each meal.

Here's the food plate diagram suggested by One Medical Group:



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The Good News About Low-Carbohydrate Diets

In previous newsletters, we have suggested replacing sugars, sugary drinks, and refined carbohydrates with vegetables, fruits, and whole grains, to promote normal blood sugar levels. This lifestyle is valuable, because it is not only effective in promoting general wellness (blood sugar health and fitness included), but also less difficult to stick with.

However, if this lifestyle isn't keeping your blood sugar levels within the normal range—or you need to lose weight as fast as possible—then you probably can try low-carbohydrate diets. Low-carbohydrate diets (or “low-carb” diets) are diets in which less than 10% of the calories come from carbohydrates, which include all foods containing sugars and starches (e.g., table sugars, refined starches, grains, beans, vegetables, and fruits), while the rest come from proteins and fats.

For those who wish to keep their blood sugar levels within the normal range, the immediate effect of low-carb diets is that the post-meal blood sugar spikes will be greatly reduced. Another favorable effect is that rapid weight loss will likely follow, which is highly beneficial and needed by most folks

who want to promote normal blood sugar levels, since weight loss will almost certainly increase insulin sensitivity and bring support for healthy blood sugar levels, including the fasting blood sugar levels.

Also, energy levels will be higher because of more stable post-meal blood sugar levels.



Low-Carb Diets Deliver Impressive Results

Low-carb diets have existed for more than 100 years, and over the past 10 years extensive studies on these diets have found impressive effectiveness. Here are the findings of some selected studies.

In 2003, *The New England Journal of Medicine* published a study done by Dr. Samaha and her colleagues from the Philadelphia Veterans Affairs Hospital and University of Pennsylvania School of Medicine. They compared the efficacy of low-carb and low-fat diets in 132 obese subjects and concluded that

Severely obese subjects... lost more weight during six months on a carbohydrate-restricted diet than on a calorie- and fat-restricted diet...even after adjustment for the amount of weight lost.

Also in 2003, a research group from Harvard University studied participants consuming

one of three diets over 12 weeks: A low-fat diet, a low-carb diet with the same number of calories, and a low-carb diet with 300 extra calories per day.

The researchers found that the low fat group lost 17 pounds on average, the low-carb group eating the same number of calories lost 23 pounds, and the low-carb group eating more calories lost 20 pounds. In commenting on their results, Dr. Greene, the group leader, stated:

There does indeed seem to be something about a low-carb diet that says you can eat more calories and lose a similar amount of weight.

In 2006, Dr. Nielsen from Sweden completed a study of people who wanted to promote normal blood sugar, randomly assigning participants to low-carb diets and conventional high-carb diets monitored over 22 months. All test subjects consumed the same amount of calories.

Over the first 6 months, the low-carb group was found to have significantly greater weight loss and support for healthy glucose levels, after which many of the control (high-carb) group changed diets. The low-carb group was found to mostly maintain their weight loss and healthy glucose support through the 22 months of the study.

In 2008, medical scientists from Israel, Germany and US reported in *The New England Journal of Medicine* that they studied 322 moderately obese adults over a 2-year period assigning each to one of three

diets: A low-fat and restricted-calorie diet, a "Mediterranean" restricted-calorie diet, or a low-carb and non-restricted-calorie diet.

The low-carb group showed both the greatest weight loss and the most improvement in cholesterol. The Mediterranean group showed the greatest support for blood sugar health.

A Few Caveats About Low-Carb Diets

However, a low-carb diet has its shortcomings as well. Large protein intakes can stress the kidneys. Therefore, people with kidney problems are advised not to try a low-carb diet.

Because the brain may lack sufficient and steady sugars from the diets, mood can be affected. And because vegetables, fruits and whole grains intakes are limited, valuable nutrients such as vitamins, fibers, anti-oxidants, and other phyto-nutrients will be missing which may affect other body systems—such as the immune system—from proper functioning.

Based on the above, we recommend using low-carb diets for a short period of time (less than 6 months), subsequently transferring to a more balanced diet, such as the Mediterranean diet, which consumes about 50% calories from proteins and healthy fats and 50% from non-refined carbohydrates such as vegetables, fruits, and whole grains. Indeed, as demonstrated in the 2008 Israel, Germany, and US study, a more balanced diet (the Mediterranean diet)

had the best blood sugar support during the 2-year period.

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Target any one of the 3 Essentials and you'll support healthy blood sugar levels. But **target all 3 Essentials together** and you'll help keep your blood sugar levels within the normal range.

Try Glucocil and see how much it can help you! To order, go to www.Glucocil.com and click the red “Buy Now” button.

Harvard Study: 'Eat Right,' Not 'Eat Less,' Is the Key to Weight Management

Despite the advice of “eat less, exercise more” from the health community and government agencies, Americans are getting heavier by the decade. Clearly, this message is not working, and there are several possibilities why.

Perhaps most people—consciously or subconsciously—don’t like to feel unsatisfied or unfulfilled when they leave the table after eating.

Another possibility is that we may just move less, and children are spending more time in front of computers and TVs (rather than on the playground). Maybe it’s how much sleep we get: Either not enough or too much. Or it could be alcohol and/or cigarette consumption. But, as most of us suspect, it could also be the foods we eat.

Startling Results from a 20-Year Harvard Study

Well, five prominent doctors and scientists from Harvard University did the most detailed analysis of Americans’ lifestyles to determine what factors make us fat or fit. They followed 120,877 people over 20 years and published the findings in the prestigious *New England Journal of Medicine*.

The researchers found that people didn’t become overweight overnight: Rather,

pounds were added slowly, often unnoticed. But after two decades, the pounds added up to a big problem. On average, individuals in the studied population gained only 0.85 pounds per year (or 3.35 pounds during each 4-year period). But at the end of the 20-year study, 17 pounds had been put on!



Yes—the authors noted—exercise, sleep, television watching, smoking and alcohol intake all influenced weight, but the biggest contributors were the foods that people ate. People who ate certain types of foods did not gain weight (some even lost weight!) over the 20 years, while people who ate some other types of foods gained weight, some in large amounts, during the study period.

Here are two lists of foods that greatly influenced body weight:

FOODS ASSOCIATED WITH WEIGHT GAIN (BASED ON ONE SERVING PER DAY, LBS GAINED DURING EACH 4-YEAR PERIOD)

1. French fries (+3.35 lbs)
2. Potato chips (+1.69 lbs)
3. Sugar-sweetened beverages (+1.00 lb)
4. Red or processed meats (+0.94 lb)
5. Trans fat (+0.65 lb)
6. Other forms of potatoes (+0.57 lb)

7. Sweets or desserts (+0.41 lb)
8. Starch/refined grains (+0.39 lb)
9. Fried foods consumed at home (+0.36 lb)
10. 100% fruit juice (+0.31 lb)

(BASED ON ONE SERVING PER DAY,
LBS LOST DURING EACH 4-YEAR
PERIOD)

1. Yogurt (-0.82 lb)
2. Nuts (-0.57 lb)
3. Fruits (-0.49 lb)
4. Whole grains (-0.37 lb)
5. Vegetables (-0.22 lb)
6. Diet soda (-0.11 lb)

“This study shows that conventional wisdom—to eat everything in moderation, eat fewer calories and avoid fatty foods— isn’t the best approach,” said Dr. Dariush Mozaffarian, a Harvard cardiologist and epidemiologist and lead author of the study, in a recent interview. “What you eat makes quite a difference. Just counting calories won’t matter much unless you look at the kinds of calories you’re eating.”

Replace Bad Foods with Good Foods

Dr. Mozaffarian goes on: “There are good foods and bad foods, and the advice should be to eat the good foods more and the bad foods less,” he said further. “The notion that it’s OK to eat everything in moderation is just an excuse to eat whatever you want.”

It was interesting to see that increased consumption of some foods, such as vegetables, nuts, fruits, and whole grains, were associated with weight loss (or less weight gain). Of course, these foods have calories, so it’s likely higher consumption of these healthy foods leads to reduced consumption of unhealthy foods that have more calories. Therefore, to lose weight, “replace” is probably a better strategy than “restrict,” especially for long term success, as Dr. Mozaffarian suggested.

What Does This Mean for People Who Want to Promote Normal Blood Sugar?

It’s probably no surprise to see that all foods associated with weight gain, except meat and trans-fat, are ones that raise blood sugar levels significantly right after they are consumed, while foods associated with weight loss produce minimal post-meal blood sugar levels. This is likely another reason why overweight people find it more difficult to support healthy blood sugar. It also means that if you replace unhealthy foods with healthy ones, you can reduce your weight AND promote normal blood sugar levels.

How Glucocil Can Help

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help keep your blood sugar levels within the normal range.

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Why Is Yogurt Associated with Weight Loss? - The Possible Roles of Gut Flora

A US study found that regularly eating certain foods (including nuts and fruits) was associated with weight loss, and yogurt was at the top of the list. People who ate one serving of yogurt a day lost 0.82 pounds every four years, while the general population gained 3.35 pounds during the same period of time.

Why is eating yogurt linked to weight loss? There may be several reasons. Perhaps people who like yogurt generally live a healthier lifestyle? Or maybe the milk protein in yogurt is filling, causing people to eat less? But more likely, say some scientists, it's because the bacteria contained in yogurt influences the growth of people's gut flora. (As you may know, yogurt is produced by the bacterial fermentation of milk.)

Does Gut Flora Affect Weight?

A human body is home to a large number of microorganisms, as many as 100 trillion! Most of them are in the colon and are called gut flora. These microorganisms are 9x more in number than the body's cells. Since each bacterium is much smaller in volume than an individual cell, the entire population of gut flora is about the weight of a kidney.

However, gut flora are as metabolically active as the liver, and there's increasing evidence that gut flora plays an important

role in our energy balance and metabolism, through which body weight and other health aspects, such as insulin sensitivity, may be influenced. One of the key activities of gut flora is to efficiently extract calories from ingested food and pass them to the host, a process called energy harvest. In addition, gut flora may also promote fat deposition and trigger systemic inflammation, both of which can result in obesity and insulin resistance.



In one study involving mice, researchers raised one half of a group of mice in a sterile environment free from exposure to bacteria that would allow normal gut flora to develop. When the scientists then measured the two groups of mice for body fat, the mice without normal gut flora had 42% less total body fat, even though they consumed 29% more food.

When those researchers later transplanted gut flora from the “normal” mice into the “germ-free” mice, those mice experienced a 57% gain in body fat (which led to insulin resistance), without any increase in food consumption or change in energy expenditure.

Furthermore, among mice fed with a Western-style, high-calorie diet for 8 weeks, “germ-free” mice gained only 40% of the weight gained by their normal counterparts.

There is also increasing evidence that not only the *presence*—but also the relative *proportion*—of different groups of gut flora, correlate with obesity. When comparing obese mice with their lean siblings, it was found that the obese mice had 50% fewer Bacteroidetes (a group of gut bacteria) but

corresponding more Firmicutes (another group of gut bacteria) than their lean littermates.

If these gut flora from obese mice or lean mice are transplanted to germ-free mice, after two weeks, the recipients of the “obese-type” bacteria had a significantly greater dietary caloric extraction and fat gain compared with recipients of “lean-type” bacteria, despite no differences in food consumption and energy expenditure.

Can Humans Benefit from "Lean-Type" Gut Flora?

In human studies, an examination of 12 obese individuals found that they had fewer Bacteroidetes and more Firmicutes compared with lean controls, a pattern similar to the obese mice. They were then assigned to low-calorie diets and had their gut flora monitored for a year. The relative proportion of Bacteroidetes increased with a corresponding decrease in Firmicutes. This shift correlated with percentage weight loss.

These findings not only support the role of gut flora in obesity but also raise the possibility of gut flora manipulation as a strategy for regulating energy balance in obese individuals.

Interestingly, for more than 50 years, farmers have promoted weight gain in farm animals by modifying gut flora: Antibiotics and probiotics are used in cattle as growth promoters. It has been suggested that the indiscriminant use of antibiotics and probiotics in cattle may be contributing to the world’s obesity epidemic.

Is yogurt bacteria promoting lean gut flora growth? Possibly, but there’s no definite conclusion yet, and the scientific community is working towards an answer. In the future,

“lean-type” bacteria may be used to help fight the obesity epidemic.

How Glucocil Can Help

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Mulberry Leaf: The "Divine Leaf" for Promoting Normal Blood Sugar

*Here we go round the mulberry bush
The mulberry bush, the mulberry bush
Here we go round the mulberry bush
So early in the morning*

Although this rhyme is commonly sung by children, the mulberry leaf (which actually grows on trees) can play a very special role for people who want to support healthy blood sugar levels. First, a little history.

The mulberry leaf has been used in Chinese traditional medicine for thousands of years. *Pharmacopoeia of the Heavenly Husbandman*, the first written documentation of Chinese herbal medicine (dating back to 200 B.C.), called mulberry leaf the "Divine Leaf" because of its healing and anti-aging power.

Later, the *Grand Materia Medica* (or *Compendium of Materia Medica*), written in the 16th century, and the most authoritative classic Chinese herbal textbook, also described mulberry leaf as the "Divine Leaf," saying "It can be boiled to drink as tea, and if taken often can make people wise...and the body light and ageless; it can promote beauty and strength digestion, calm spirits and stabilize moods."

Mulberry trees are grown in many parts of the world, including Asia, Europe, and North America. Mulberries are commonly eaten as a fruit, and according to the

American Herbal Products Association mulberry leaf has been safely consumed for thousands of years (www.ahpa.org). During the last several decades, both animal and human studies have established that mulberry leaf extracts have strong safety profiles. The mulberry leaf extract used in Glucocil is produced under strict quality control systems. Glucocil is regulated by the FDA as a dietary supplement and is regularly tested by independent laboratories to ensure its quality.



Modern science confirms that the extract of mulberry leaf (*Morus alba* in Latin) is immensely beneficial to those with blood sugar concerns, because it contains:

- Alkaloids and N-containing sugars, which help inhibit alpha glucosidase, a key enzyme in carbohydrate and sugar metabolism pathways
- Ecdysterone, which helps transform glucose into glycan, helping support normal fasting blood sugar levels
- Quercetins, which help improve blood vessel function, serum lipid profiles, and erythrocyte membrane lipids

However, studies have found that the health benefits of mulberry leaf extract vary greatly, depending on where the leaves are grown, what time of year the leaves are harvested, what types of leaves are picked, and how the leaf extract is prepared. Glucocil's mulberry leaves are grown in the deep mountains of Southeast China,

harvested in late August, and only leaves on the distal parts of younger branches (i.e., the tips of younger branches) are picked to ensure the active ingredients are at their richest. A proprietary extraction method is then applied to prepare the final ingredient.

A growing body of evidence suggests that when it comes to reaching your blood sugar goals, post-meal levels are at least as important as fasting levels. No other complete formula has mulberry leaf extract. And only the proprietary mulberry leaf extract in Glucocil has been shown to reduce peak post-meal blood sugar spikes by an average of 44 percent and reduce the absorption of sugar and carbohydrates by 21 percent.

All Mulberry Leaf Extracts Are Not Alike

The health benefits of mulberry leaf vary greatly with differences in extraction methods: Whereas some extracts don't support healthy blood sugar levels, others are wonderfully effective. That's why Neuliven Health conducted two clinical research studies to confirm that its proprietary mulberry leaf extract was the most effective.

1st Published Clinical Trial

The first published study of the proprietary mulberry leaf extract appeared in The American Journal of Clinical Nutrition in 2006. The results showed a statistically significant increase in breath-hydrogen concentrations in the subjects ingesting the extract versus the placebo with the carbohydrate-containing meal, a finding indicating that the extract induced carbohydrate malabsorption. Based on the breath-hydrogen increase, it was calculated that the mulberry leaf tea extract reduced

25% absorption of the carbohydrate in the meals.

2nd Published Clinical Trial

The second published study of the proprietary mulberry leaf extract was published in 2007. Its title, "Influence of Mulberry Leaf Extract on the Blood Glucose and Breath Hydrogen Response to Ingestion of 75g of Sucrose," summarizes the main objectives of the study. The results showed that mulberry extract significantly reduced the blood glucose increase at 15, 30, 45 minutes after sucrose ingestion.

These results are impressive, and what makes them credible is that both were conducted by a team of researchers and doctors at the University of Minnesota (Minneapolis VA Hospital) using the "gold standard" in clinical research: The double-blind, placebo-controlled, cross-over methodology.

How Glucocil Can Help

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Berberine, a Natural Biomolecule for Promoting Normal Blood Sugar

Berberine is a major active component of the herb phellodendron (otherwise known as huanglian), which has been used in China for thousands of years as a mainstay of traditional Chinese medicine. (Berberine is also found in several other plants, including Goldenseal and Oregon Grapes.) But only during the last 20 years have scientists around the world confirmed that this natural molecule can be very effective in supporting healthy blood sugar levels...and more!

How Berberine Works

Since early 2000, many studies—including both animal and human studies—have demonstrated berberine's significant support for healthy blood sugar. In fact, one double-blind, placebo-controlled study of 110 participants not only confirmed those results, but also showed that berberine supports healthy total cholesterol and LDL cholesterol, as well as triglyceride levels. Other studies suggest berberine can help with blood pressure, weight loss, and immune function!

Berberine's support for healthy blood sugar levels is a result of the following mechanisms:

1. Reducing the liver's production of glucose: The liver produces glucose

as energy for cells to use. However, to support healthy blood sugar, the liver should not produce more glucose than the body needs. Berberine has been found to be effective in helping keep liver glucose production within the normal range.



Berberine derived from
phellodendron bark

2. Insulin tells the cells to uptake glucose from the blood for energy. Keeping cells responsive to insulin (insulin sensitivity) helps support healthy blood sugar. In a 2008 human study, insulin sensitivity was improved by 45 percent with berberine use!

3. Suppress absorption of glucose at the intestinal level. Another way the body gets glucose (as energy) is through absorption of carbohydrates in the intestines. If too much glucose is absorbed (usually because of eating too many carbohydrates), there will be a post-meal blood sugar spike. But berberine helps suppress the absorption of glucose.

How Glucocil Can Help

Berberine is just one of the 14 ingredients in Glucocil, formulated to support the 3 Essentials of Healthy Blood Sugar. Most people aren't aware of the "**3 Essentials of Healthy Blood Sugar**":

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Gymnema Sylvestre: The Sugar Destroyer

Gymnema sylvestre is a rain forest vine found in Central and Southern India, and tropical Africa. Its Indian name is “Gurmar,” which means “sugar destroyer,” because when the leaves are chewed they temporarily block (for 1-2 hours) the taste buds from tasting sweetness.

For over 2,000 years, *Gymnema* has been used as a natural medicine for promoting normal blood sugar.

Ancient Wisdom Proved Right

Modern science has found that *Gymnema* contains a group of active compounds—called gymnemic acids—which have similar molecular structure as glucose. When *Gymnema* leaves are chewed, gymnemic acids occupy the glucose receptors on taste buds, preventing glucose from binding to the same receptors. This is why people temporarily lose the sugar taste and feel less craving to eat sugar. For many people who want to keep their blood sugar in the normal range, *Gymnema* helps them consume less sugar, a necessary step in supporting healthy glucose levels.

Gymnemic acids can also bind to the glucose receptors on the surface of the small intestine and prevent glucose from being absorbed into the bloodstream, helping avoid post-meal blood sugar spikes.

Furthermore, *Gymnema* extracts improve insulin sensitivity and support healthy blood sugar levels by enhancing the uptake of

glucose into muscle and liver cells. And *Gymnema* extracts also increase the liver’s storage of glucose while reducing its production of glucose, resulting in less glucose being released into the bloodstream.



Best of all, *Gymnema* can stimulate and increase the number of insulin-secreting beta cells located in the pancreas! This can help the pancreas produce and secrete normal amounts of insulin, and healthy insulin production is important for maintaining normal blood

sugar levels. Clinical research demonstrates that *Gymnema sylvestre* helps maintain healthy insulin production.

For Blood Glucose Health, *Gymnema sylvestre* Is a Star Player

In summary, both laboratory and human studies have found that *Gymnema sylvestre* can:

1. Stimulate and increase the number of insulin-secreting beta cells in the pancreas to increase the body’s own production of insulin.
2. Reduce the absorption of sugar by decreasing the uptake of glucose from the intestine.
3. Promote insulin sensitivity by improving glucose uptake into muscle and liver from blood.
4. Temporarily block people’s ability to taste sweets, helping them eat less sugar.

Because of its all-around function, *Gymnema sylvestre* is a star in managing blood sugar health. Glucocil is formulated to contain a clinically researched amount of *Gymnema sylvestre*, to help you promote normal blood sugar levels.

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Polyphenols Pack a Punch for Healthy Blood Sugar

Polyphenols—a group of antioxidative molecules found in a variety of plants such as grapes and coconuts—have been found to help support blood sugar health, according to a study at Italy’s University of Naples Federico II. Previous studies showed that polyphenols may help improve how the human body metabolizes sugar.

The new study divided 45 overweight or obese people into four groups, and each group was placed on a different diet:

- Group #1 ate a diet low in omega-3 fatty acids and polyphenols (same as the typical American diet)
- Group #2 ate a diet high in omega-3 fatty acids
- Group #3 ate a diet high in polyphenols
- Group #4 ate a diet with omega-3 fatty acids and polyphenols (but lower amounts than Group #3)

The study found that the group on the omega-3 fatty acid-enriched diet lost the most weight during the 8-week study. But blood sugar and insulin levels were healthier in the group that ate a polyphenol-enriched diet (researchers also saw improved pancreatic health in people on the polyphenol-enriched diet).

Bottom line: Research suggests that eating foods rich in polyphenols—foods such as dark chocolate, green tea, coffee, and extra virgin olive oil—can help support healthy blood sugar.

How Glucocil Can Help

You will also find a significant amount of polyphenols in Glucocil, thanks to the proprietary mulberry leaf extract and the *Gymnema sylvestre* extract.

But Glucocil doesn't stop there. Glucocil is formulated to support the 3 Essentials of Healthy Blood Sugar:

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Two Good Friends for Your Liver: Alpha Lipoic Acid & Banaba

One of the liver's jobs is to make glucose, which is used by our body as direct energy, from the foods we eat (or stored body fat). If the liver can't properly produce glucose—due to aging or poor health—excess glucose builds up in the bloodstream, sometimes 200%-300% or more than what is necessary. But like good friends, the natural ingredients of alpha lipoic acid and banaba can work together and help support the liver's healthy production of glucose.

Alpha Lipoic Acid

Alpha lipoic acid is a natural molecule found deep inside every cell of the body, where it serves as an important regulator of cellular energy. Studies have found it not only helps support the liver's adequate production of glucose, but also helps insulin move glucose from blood into body cells, thus helping to improve insulin sensitivity.

Banaba Leaf Extract

Banaba, a tropical plant grown in the Philippines, has been used for centuries to help keep levels of blood sugar and insulin in healthy balance. The major active compound in banaba leaf—corosolic acid—improves insulin sensitivity by facilitating the glucose transporter, one important part of the insulin signaling pathway. Banaba may also help prevent the liver's over-production of glucose. What's more,

researchers have found that banaba promotes healthy blood lipids and blood pressure, of particular importance to those people with blood sugar concerns. And taking mulberry leaf and banaba leaf extracts together has been shown to have a synergistic effect in improving glucose metabolism.



Alpha Lipoic Acid derived from natural sources



Banaba Leaf

How Glucocil Can Help

You'll find alpha lipoic acid and banaba among the 14 natural ingredients in Glucocil, because only Glucocil is formulated to support the 3 Essentials of Healthy Blood Sugar:

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Healthy Blood Sugar: The Buzz About the Bs

In Major League Baseball, a “utility player” is a player prized for his versatility, which enables a team manager to insert him into several different positions depending on the need to optimize the team’s performance. These jack-of-all-trades never know exactly where their names will be penciled into the lineup, yet they’ve made their careers out of being able to play multiple positions in a season.

When it comes to optimizing blood sugar, there are clinically researched B vitamins that qualify as “utility players,” because they help support healthy blood sugar function in more than one way. The B vitamins may not receive the attention that mulberry leaf, cinnamon, or chromium receive, but without them there would be holes in the lineup of natural ingredients that can help promote normal blood sugar.

Banaba Leaf Extract

Vitamin B1 is an important vitamin involved in carbohydrate metabolism and fatty acid metabolism, making it easier for all the cells of your body to absorb and utilize glucose, thereby influencing the energy production process.

Vitamin B6 is an important vitamin involved in protein metabolism; it also supports nerve health.

Vitamin B12 helps to support blood vessel health by reducing homocysteine levels in blood, and helps maintain healthy red blood cells.



**Vitamins B1, B6, and B12
derived from natural sources**

How Glucocil Can Help

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Element of Surprise: Chromium Supports Healthy Glucose Uptake

Chromium—a natural essential trace element found in nuts (like the Brazil nuts pictured at right), fish, and other foods—is considered one of the all-star natural ingredients to support healthy blood sugar. It's a must-have for getting glucose into your cells, because it helps increase the number of binding sites on your cells for insulin to enter, thus improving insulin sensitivity.



Chromium Picolinate derived
from natural sources

Research into chromium as a helpful regulator of glucose metabolism began in the 1950s, and has since become one of the most studied natural ingredients for promoting normal blood sugar.

Unfortunately, an estimated 90% of American diets provide less than the minimum amount of chromium recommended by the National Academy of Sciences. Deficiencies are common in this country, probably because of our high consumption of chromium-depleted sugar and refined grains.

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Vitamin D Does Your Body (and Blood Sugar) Good

Vitamin D is a fat soluble vitamin found in certain foods, such as fish and cereals. You may know that D helps maintain healthy cardiovascular function, enhance bone strength, and promote joint comfort. You may also know that vitamin D helps promote heart, blood vessel & circulatory health.

But here's something you may not know about vitamin D: A recent study from Tufts and Harvard found that daily supplementation of D improves the function of the pancreas' beta cell, which are cells that produce insulin. That's good news for folks trying to keep their blood sugar normal.

In their clinical trial, the Tufts and Harvard researchers studied 92 people with an average age of 57 and an average BMI (Body Mass Index) of 32. Participants were randomly assigned to receive 2000 IU daily of vitamin D3 (a form of vitamin D) or 800 mg daily of calcium carbonate (a form of calcium). Participants received either the vitamin D with or without calcium—or calcium alone—for 16 weeks.

At the end of the study, people receiving vitamin D enjoyed improved beta-cell function, with the so-called "disposition index" (a measurement of beta-cell function that depends on insulin secretion and insulin sensitivity) improving by about 26 percent, compared with a decline of about 14 percent in the no-vitamin D group.

What does this mean? According to the research team leader, Dr. Anastassios Pittas, from Tufts Medical Center in Boston, vitamin D may have a role in helping people support healthy blood sugar. Unfortunately, about 75% of Americans have lower-than-normal levels of vitamin D in their blood, because it's hard to get enough from what you eat. But Glucocil can help.



How Glucocil Can Help

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Normal Blood Sugar and the Importance of Sleep

You may think that sleep deprivation isn't a big deal and that you're fine on getting by with just a few hours of shut-eye. But don't fool yourself. If you're getting less than seven or eight hours of sleep per night (the amount recommended by most medical experts), then it may be harder to promote normal blood sugar.

Sleep Facts and Stats

Just how prevalent are sleep problems among Americans and why is not sleeping well such a big deal? According to the American Academy of Sleep Medicine:

- Humans spend about a third of their lives asleep.
- The average adult now sleeps less than seven hours a night.
- One-third of adults report daytime sleepiness so severe that it interferes with work and social functioning.
- It is estimated that 50 million to 70 million Americans suffer from a chronic sleep disorder.
- Drowsy driving is associated with almost 20 percent of all serious car-crash injuries.
- People with untreated sleep apnea have a higher risk of death due to heart disease.

- Sleeping less than seven hours per night leads to sluggishness during the day.

According to a study published in the *Archives of Internal Medicine*, women who slept only five hours a night found it more difficult to support healthy blood sugar than those who slept seven or eight hours. One explanation for this link is that sleep deprivation decreases insulin sensitivity. Another study found that, when healthy young men slept only four hours a night for six nights in a row, their bodies had more difficulty supporting healthy blood sugar levels.



Tips for a Better Night's Sleep

To make sleep a priority, you need to plan for it and put it on your "to-do list," if necessary. According to the National Sleep Foundation, "Don't make it the thing you do only after everything else is done—stop doing other things so you get the sleep you need." The Foundation also recommends that you follow these sleep tips:

- Establish consistent sleep and wake schedules, even on weekends.
- Create a regular, relaxing bedtime routine such as soaking in a hot bath or listening to soothing music. (Begin an hour or more before the time you expect to fall asleep.)
- Create a sleep-conducive environment that is dark, quiet, comfortable and cool.

- Sleep on a comfortable mattress and pillows.
- Use your bedroom only for sleep and intimacy. (Keep "sleep stealers," such as televisions and computers, out of the bedroom.)
- Exercise regularly during the day or at least a few hours before bedtime.
- Avoid caffeine and alcohol products close to bedtime and stop smoking if you are a smoker.

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Healthy Blood Sugar During the Holidays

It's about that time of year... a time when the temptation to overindulge in sugary and fattening foods presents a challenge even for the strictest health-conscious individual.

Holiday foods will surely cause a big swing in post-meal blood sugar levels, first going very high after a big meal and then dropping low because of insulin overshoot.

But despite having to face the lure of treats around every corner, the holidays don't have to interfere with supporting healthy blood sugar—and you don't have to miss out on your favorite foods or that piece of pumpkin pie. Rest assured:

You can still maintain healthy blood glucose levels even during the holiday season! Just keep in mind these strategies, compiled from various health experts.

1. **Plan ahead.** Save your indulgences for celebrations and forgo the sweets and high-carbohydrate foods on the other days. In other words, try to plan your “splurge days.” Also, if you know you are going to a gathering or event that will be a culinary affair, eat something healthy beforehand. That way you won't be so hungry when you get there that you're tempted to grab anything—and everything—in sight. Also, when travelling keep healthy snacks, like nuts and dried fruit, handy. It's also a good idea to keep these type of snacks at your desk at work, so that

you can avoid going to the break room where you know they'll be a counter full of tempting treats.

2. **Set guidelines.** Make a list of guidelines to follow that will help keep you on track. For instance, make it a rule to first eat a plateful of something healthy, like vegetables and lean protein, before partaking of anything else. Or tell yourself you'll always wait at least 20 minutes before even considering taking that second helping of food (often the temptation will subside and you end up not wanting more anyway).

3. **Think before you splurge.** Don't eat

mindlessly. For example, when walking by free samples at the store, or by the box of candy sitting in the coffee room at work, don't simply grab a piece without thought. Instead, pause a moment and consider your food “budget” for the day or how that treat might affect your blood sugar. Being conscientious—and cautious—about what you eat at each moment can save you a lot of worries later.

4. **Be selective.** Eat only the foods you really love, enjoy them, and then forgo the mediocre stuff. You'll be surprised how many “take it or leave it” foods you can let slip by. Also, be choosy about which events to go to, and attend only your favorite or “must-go” celebrations.



5. **Keep a low - or no calorie beverage in hand.** Sipping on a low or no-calorie beverage throughout the day can help keep your hunger at bay. (Hunger is often confused with thirst, so by quenching your thirst you may also squelch your hunger.)
6. **Boost up the whole grains.** When making your own treats, especially baked goods, substitute whole-grains for refined ones. And make that left-over turkey sandwich with whole-grain bread as well. Whole grains help control your blood sugar levels, as well as provide the fiber you need.
7. **Substitute the carbs.** According to the leading advocacy organization, “the key to keeping your blood glucose levels on target is to substitute small portions of sweets for other carbohydrate-containing foods in your meals and snacks.” A simple example: If you'd like to have cookies with your lunch, you need to substitute for another carbohydrate-containing food. If your lunch is a turkey sandwich with two slices of bread, swap the two slices of regular bread for two slices of low-calorie bread (with half the carbohydrate) and have the cookies. Your total amount of carbohydrate remains about the same for the meal.
8. **BYOG - Bring Your Own Goodies.** Take your favorite healthy dish to share at a special gathering, especially when you know they'll be a lot of tempting sweets. That way you'll be confident that there will be a healthy alternative that you can turn to.
9. **Don't let guilt get you.** Often, relatives or dear friends mean well when they bring you their favorite treat or offer you their must-try family recipe for apple pie. But while it can be difficult to communicate your needs to your loved ones, you don't need to feel guilty when you turn them down. If you feel you simply must save face, compliment their efforts and accept their gift graciously, or simply say that you are really too full but you'll take it for later (then pass it along to another friend).
10. **If you choose to drink alcohol, use caution.** The holidays have become a time to raise a glass and say “Cheers!” It's best to raise a glass of water instead of alcohol. Still, if you choose not to forgo the occasional eggnog champagne or wine, do so with caution. According to the leading advocacy organization, aside from the healthy and safety concerns about drinking, “alcohol can cause hypoglycemia shortly after drinking and for 8-12 hours after drinking. So, if you want to drink alcohol, check your blood glucose before you drink and eat either before or while you drink. You should also check your blood glucose before you go to bed to make sure it is at a safe level—between 100 and 140 mg/dL. If your blood glucose is low, eat something to raise it.”
11. **Rev up the exercise.** You're probably already aware that exercise is a great way to lower blood glucose levels. During the holidays, however, you should boost up your exercise regimen to counteract any indulgences and prevent weight gain.

For example, taking a ten- to fifteen-minute walk after a big meal can really help keep healthier blood sugar levels.

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12. **Use a diversion tactic.** When tempted with high-calorie, sugar-laden foods, try diverting your attention elsewhere. Perhaps go for a walk, pour yourself a beverage, strike up a conversation, or even go brush your teeth. You'll be surprised how much a small distraction can take your mind off food. Also, focus on the joy of the season instead of focusing on food. Make the holidays all about celebrating the meaning of the season and spending time with family and friends. Perhaps even take time to volunteer. Bringing joy to others often returns itself tenfold!

Show Glucocil Can Help

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What You Should Know About Blood Sugar and the Flu

Getting the flu is no fun for anyone, but for people who want to promote normal blood sugar, it can be especially challenging. So what extra precautions should you take when it comes to supporting healthy blood sugar and protecting yourself during flu season?

First and foremost: If you haven't already, get your flu shot...NOW! It could save your life! In the meantime, do not delay in seeking medical treatment if you develop symptoms of the flu (usually high fever; severe aches and pains in the joints and muscles and around the eyes; generalized weakness; ill appearance with warm, flushed skin and red, watery eyes; headache; dry cough; or sore throat and watery discharge from the nose).

What to Do If You Get the Flu

Even with a flu shot, you can still get the flu—although a milder form of it or even a different strain of the virus. Therefore, it is important that you do the following if you feel you might be catching the flu or, of course, if you think you already have it:

1. **Adopt good hygiene habits.**

Covering your mouth and nose with a tissue when you cough or sneeze and washing your hands often can help stop the spread of germs and help prevent the flu, according to the CDC. Wash your hands often with soap and water (this is especially crucial when testing your blood

glucose). If soap and water aren't available, use an alcohol-based hand rub. Also avoid touching your eyes, nose and mouth since germs are spread that way.

2. **Hydrate often and eat regularly.**

Try to eat your usual diet. If you can't, eat enough soft foods or drink enough liquids to take the place of the fruits and starchy foods you usually eat. Also, drink extra calorie-free liquids, like water, diet soda or tea, 4 -6 ounces every hour in small sips.

3. **Check your blood sugar closely.**

Having the flu can interfere with your efforts to promote normal blood sugar, so check your numbers more often. And if you can't keep food down, see your doctor, because maintaining a proper diet is critical to promoting normal blood sugar.

4. **Read labels carefully before using any over-the-counter medications.**

Many of these medications, especially cough syrup, contain sugar, which can affect your blood glucose levels. You should take this precaution with any medication, whether you are sick or not. When in doubt, talk to your doctor or a pharmacist who can recommend an alternative over-the-counter medication that has less sugar or none at all.

5. **Get treatment early.** If you are too sick to eat or keep food down for



more than six hours, call your doctor or go to the emergency room. You should also see a doctor immediately if you are having trouble breathing or have severe diarrhea, lose 5 pounds or more, can't think clearly or feel extremely sleepy, have a temperature over 101 degrees (take your temperature at least twice a day—in the morning and in the evening), or have a blood glucose level lower than 60 mg/dL or over 300 mg/dL. According to the CDC, antiviral drugs, such as oseltamivir (Tamiflu) or zanamivir (Relenza), are most beneficial when started in the first 48 hours after illness onset. (Of course, they should also be given even after 48 hours to people who are not improving, especially those with a high risk condition.) Antiviral drugs are prescription medications that fight against the flu by keeping flu viruses from reproducing in your body. They can also make your illness milder and make you feel better faster—as well as help prevent serious flu complications.

We wish we could say there's a magic pill that will give you full-proof protection against the flu. Unfortunately, there isn't. Although flu shots come close, they aren't 100 percent effective against all the flu viruses that you might be exposed to. Therefore, you need to do everything you can right now to keep your immune system stronger during flu season (and throughout the year), especially as someone who wants to promote normal blood sugar.

Make it a top priority to get your flu shot. It could save your life. And to help keep your immune system functioning optimally, you need to support healthy blood sugar levels—

especially when it comes to post-meal blood sugar spikes.

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